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## STERNDALE

## HORNS OF THE INDIAN AND CENTRAL ASIAN RUMINANTIA


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## NOTES ON THE HORNS

OF THE

# INDIAN AND CENTRAL ASIAN RUUIINANTIA 

BELONGING TO<br>HIS HIGHNESS THE MAHARAJAH OP TRAVANCORE, G.C.S.L.,<br>IN THE MUSEUM AT<br>TRIVANDREMI.<br>COLLECTED BY

R. A. STERNDALE, F.R.G.S., F.Z.S., ETC.

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LAWRDNCE ASYLUM PRESS, MOUNT ROAD,

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# INDIAN AND CENTRAL ASIAN RUMINANTIA 

BELONGING TO

## MIS HIGHLILSSS THIE MAHARAJAII OR TRAVANCORR, G,C.S.S.,

## IN THE MUSEUM AT

## TRIVANDRUM,

Collected by R. A. sterndale, f.r.g.s., f.z.s., etc.
No. 1.-Ovis polii.-The great sheep of the Pamir Steppes or Marco Polo's sheep. Horns 67 inches round the curve by 16 inches in girth.

Habitat.-The Tian Shan range of mountains.
This giant among sheep was first mentioned by the

Venetian traveller Marco Polo who traversed Central Asia in the thirteenth century, but since his day it has been an almost unknown animal, the few heads in possession of scientific societies having been brought down to the confines of India by traders. The Russian explorer Severtzoff was the first man to study its habits on the spot and to publish his observations. Then specimens were obtained by the Yarkand Mission and recently Mons. Dauvergne with two companions travelled over the Ovis polii country and shot 18 rams. A full sized animal stands over $3 \frac{1}{2}$ feet at the shoulder and weighs from 500 to 600 lbs . Ovis karelini has hitherto been considered a distinct species but all the recent evidence tends to prove that it is identical with Oris polii.

Nos. 2 and 3.-Ovis hodgsoni.-The Ammon of Indian sportsmen-horns 44 inches round the curve by 18 inches in girth.

Habitat.-The Tibetan Himalayas at 15,000 feet and upwards.

This fine sheep ranks next to the Ovis polii. It
stands from $3 \frac{1}{2}$ to 4 feet at the shoulder and its horns though not so long are frequently more massive-in the finer of the two specimens in this collection the girth is 18 inches which is 2 inches more than the Ovis polii though the latter is 23 inches longer. Horns of this species 48 inches long and 22 inches in circumference have been recorded.

The male is dark earthy brown above, lighter below, rump lighter coloured-tail one inch-a white ruff of long hairs on throat and chin, hair short, brittle, and close set. The flesh is very good, tender and well flavoured.

A ram of this breed once wandered away from his own locality and came into the Ovis vignei country near Ladak where he joined a herd of the latter driving out the Vignei rams by his greater size and strength and appropriating the ewes, the result was a hybrid which appears next in the list as

Nos. 4 and 5.-Ovis brookei-a cross between the Ammun father and Vignei mother. The Tibetans of
the place named this hybrid Nyan-shapoo, Nyan being' the name of the former and Shapos of the latter. It was called Ovis brookei after Sir Victor Brooke from a single specimen picked up in Ladak, but the question of its being a distinct species was set at rest by the testimony of Mons. H. Dauvergne who shot several hybrids out of the herd and sent them to me for identification. The old nyan ram was killed one winter by wolves and then the stock began to degenerate as the hybrids began to breed with the shapoo stock-the gradual reversion to the vignei type is seen in the $\frac{1}{4}$ bred specimen in this collection. The colour of the hodgsoni has been described above-that of the vignei is brown with a black-stripe down the throat, which is white. The half bred trookei resembled the father in the greyish tint and white throat-the $\frac{1}{4}$ bred brookei reverted to the brown coat of the mother with a faint black stripe down the throat.

No. 6.-Ovis vignei.-Vigne's sheep, or the Shapoo.

Habitat,-Little Tibet-Ladak from 12,000 to 14,000
feet. The colour has been described above-the horns run from 25 to 35 inches.

Nos. 7 and 8.-Ovis cycloceros.-The Oorial. Habitat.-The Salt range of the Punjab, the Suleimani range, the Hazara Hills and near Peshawar.

This species is so like the last that it may be considered a variety. I defended the distinction in my Mammalia of India but I have somewhat modified my opinion seeing how easily these wild sheep interbreed, and the slight difference arising from local influences is not, I think, sufficient to warrant their being classed apart. There are slight differences-very slight-and a wide difference in locality, but if brought together these sheep would all merge into one indistinguishable flock.

Nos. 9 to 11.-Ovis nahura.-The Burhelor Blue Sheep.

Habitat.-A very wide range from Sikkim through Tibet to Ladak and has been found on the Altyn Tagh in Central Asia. General colour a dull slaty blue
slightly tinged with fawn-the belly, edge of buttocks, and tail white-throat, chest, front of fore arm and cannon bone, a line along the flanks, the edge of the hind limbs, and tip of the tail deep black; horns moderately smooth with few wrinkles-rounded, nearly touching at the base-directed upwards, backwards and outwards, the points being turned forwards and inwards. Horns about 2 feet.

Nos. 12 to 17.-Capra megaceros.-The Mark-hor-or Bighorned Wild Goat.

Habitat.-The Mountainous distriets of Afghanistan and the highest part of the Thibetan Himalayas-in Kashmir and Ladak.

General colour a dirty light-blue gray-with a darker beard-in summer with a reddish tinge-the neck and breast clad with long dark hair reaching to the knees, hair long and shaggy, fore legs brown. The females are redder, with shorter hair, short black beard, no mane and small horns slightly twisted.

There is a series in this collection shewing a fine
old male-a young male and a female-there is also a specimen of the straight horned or Trans Indus Markhor. Markhor shooting is the finest of Indian stalking, This goat frequents the most precipitous and difficult localities and as Colonel Kinloch, one of our most experienced shikaris, says " no animal's pursuit leads the sportsman over such dangerous ground as that of the Markhor."

Nos. 18 to 22.-Capra Sibirica.-The Himalayan Ibex.

Habitat.-Throughout the Himalayas from Kashmir to Nepal.

General colour light brownish with a dark stripe down the back in summer, dirty yellowish white in winter-beard, about six inches long, black; horns scimitar-shaped, curving over the neck, flattened at the sides and strongly ridged in front. Large horns vary from 40 to 50 inches-a pair of 51 inches is recorded in the Proceedings of the Zoological Society for 1840 but the largest pair in this collection mea-
sures 52 inches. It is however of very peculiar form and colour, though an undoubted Ibex, and I have called it Capra Dauvergnii, after Mons. Dauvergne of Srinagar, as a tentative measure pending the discovery of similar specimens in the same locality which would entitle it to the distinction of a separate species or variety; nevertheless, as it stands, it is a specimen unique and extremely curious. There is none like it in either the British Maseum or the Imperial Museum in Calcutta. There is one more head in this collection which was sent to me as coming from the same locality; Baltistan, and supposed to be of the same variety but though the colour of the horn is similar, and this is not due to age or smoke as the animal was freshly killed, yet the horn is knobbed like the ordinary Ibex and not in folds as in the type of Dauvergnii. There is however the same tendency to diverge at the points.

No. 23.-Capra Ægagrus.-The Sindh, or Persian Ibex.

Habitat.-Throughout Asia Minor from the Taurus Mountains, through Persia into Sindh and Beluchistan.

A smaller animal than the last but with horns as long but of a different shape, being flat on the inside, and rounded outwardly with an edge in front-on this edge are knobs at some distance apart.

Nos. 24 and 25.-Hemitragus hylocrius.The Nilgherry Wild goat, commonly called Ibex.

Habitat.-The Western Ghauts southerly towards Cape Comorin.

No. 26.-Nemorhœdus bubalina.-The Serow or Forest Goat.

Habitat.-The whole of the wooded ranges of the Himalayas from Kashmir down past Sikkim on to the ranges dividing China from Burmah.

A large powerful animal with long legs and powerful neck looking more like a jackass than a goat. It is of a savage disposition and will charge of brought to bay, and is dangerous to approach when wounded. The colour is dull black on the back, bright reddish brown on the sides and white underneath.

No. 27.-Nemorhœdus goral.-The Goral or Capricorn.

Habitat.-The whole range of the Himalayas.
A small goat-like animal found on steep rocky hills sprinkled with forest. Goral give fairly good sport as they require careful stalking and good shooting as they do not afford much of a mark to fire at.

Nos. 29 to 32.-Gazella bennettii-The Chikara, or Ravine Antelope.

Hubitat.-Nearly the whole of India with some exceptions here and there. It is said not to be found on the Western Ghauts and the low lands of Konkan nor in the hills and coast of Malabar nor in the Ganges valley east of Benares.
The horns in this collection are above the average, 14 inches have been recorded but few reach 12 inches; one pair in this collection measures $12 \frac{1}{2}$.

No, 33-Gazella subgutterosa.-The Persian gazalle.

Habitat.-The high lands of Persia and Central Asia.

The specimen in this collection came from Kashgar-
the difference between it and the Indian Gazella bennettii is apparent at a glance-the horns being more lyrate with the points turning inwards.

Nos. 34 and 35.-Pantholops hodgsonii.The Chiru or Tibetan Antelope.

Habitat.-The open plains of Tibet from Thassa to Ladak.

This animal is a sort of link between the gazelles and restricted antelopes-lyrate horns, ovine nose and the want of a suborbital sinus connect it with the former, but the females being hornless, and the absence of knee tufts ally it to the latter. They inhabit great elevations from 14 to 18,000 feet.

In the Chang Chenmo valley they abound and Colonel Kinloch gives the following curious fact:" Females are rarely found in Chang Chenmo. I have met with herds of sixty or seventy bucks but have only seen one doe to my knowledge during the three times I have visited the valley."
Nos. 36 to 39.-Antelope bezoartica.-The Indian Antelope.

Habitat.-In open country throughout India except in Lower Bengal and Malabar.

This animal is too well known to need much description. The colour of the old males is a deep blackish brown-almost jet black in some-whence the popular "Black-buck." The back of the head, nape and neck are hoary yellowish and the underparts and inside of limbs pure white. The females are yellowish brown with a pale streak from the shoulder to the haunch, pure white below-they are hornless but I have on several occasions come across females with slender smooth horns. I figured one head for the Bombay Natural History Society-the horns were 12 inches long-thin and smooth and curved downwards.

The heads in this collection are above the average.
No. 40.-Portax pictus.-The Nylgao-or Blue Bull.

Habitat.-Tndia generally from the Himalayas to the south, except in the extreme South of the Peninsula.

A large animal representing in India a type more
common in Africa. At the first glance it reminds òne of a horse owing to its lean head, long flat and deep neck and high withers-its hind quarters are, however, antelopine and the horns decidedly bovine. The male is of an iron-grey colour which gets deeper by age-there is a large patch of white on the throat below which is a pendant tuft of black hair-the mane and tail are black, and the chest, stomach, and rings on the fetlocks are white. The female is of a tawny colour. The Nylgao is a powerful beast and rather dangerous to approach incautiously. He will bear a burden and draw a carriage. I had one which I used to ride, being a light weight. As regards sport he is but poor shooting anless from horseback after a good gallop. With a sharp spurt he is easily blown, but if not pressed he will out-gallop the endur. ance of his pursuer.

No. 41.-Poephagus grunniens.-The wild Yak.

Habitat.-The high regions of Tibet and Ladak. A wild ox covered with long shaggy hair of a jet black
colour. There is also a domestic variety. This animal requires an intensely cold climate and will not live in the plains.

Nos. 42 and 43.-Gaveus gaurus.-The Indian Wild Ox or Bison.

Habitat.-All the large forests of India from the foot of the Himalayas to near Cape Comorin.

I'his animal is well known in Travancore and he differs in no respect from his brethren in the Central Provinces and the Himalayan Terai. Of the two heads in this collection the smaller one is a young bull from the Central Provinces.

No. 44.-Bubalus Arni.-The wild Buffalo.
Habitat.-The swampy Terai from Oude to Bhatan, Assam, Burmah, Lower Bengal, Central India, down to the Godaveri and in Ceylon.

In appearance the wild buffalo is very like the ordinary domesticated animal. He may be a trifle bigger. A large male will stand 19 hands at the shoulder and measure $10 \frac{1}{4}$ feet from the nose to the root of the tail.

The horns sometimes measure as much as 13 feet but the females have the longest herns-the bulls have shorter horns but much more massive. The specimen in this collection is that of a female.

Nos. 45 and 46.-Rusa Aristotelis.-The Sam ${ }^{*}$ bar.

Habitat.-All over India and in Assam, Burmah and Ceylon.

The finest of all the stags belonging to the peninsula of India, a grand creature with fine erect carriage, heavily maned neck and massive horns-a large stag will stand 14 hands at the withers.

The average length of the antlers is about three feet but some exceed this size and the largest pair in this collection are exceptionally fine the right horn being 45 inches and the left one 43 inches.

On the right horn underneath the tres-tine is an abnormal snag 9 inches long.

These horns are remarkable for their great spread. No. 46 is a Burmese type.

No. 47.-Cervus axis.-The Spotted Dedr.
Habitat.-Throughout India Proper.
Spotted like the English fallow deer but with rusine horns. This deer is generally found in forests bordering streams und combined with its surroundings affords the most pleasurable sport to the Shikari who has a soul for nature. There is no prettier sight than a herd of these dappled deer in a forest glade with the chequered sunlight falling on them through the overhanging bamboos.

No. 48.-Panolia Eldii.-The Brow Antlered, or Eld's Deer.

Habitat.-Burmah, Siam and the Malay Peninsulait is also found in the Eastern Terai and Munipore.
A. light rufous brown stag standing from 12 to 13 hands with very long brow tines and the tres-tine greatly developed which gives the antlers a forward cast. The specimen in this collection was obtained during the late Burmese campaign.

Nos. 49 to 52.-Cervus Cashmirianus.-The Cashmere Stag.

Aabitat.-Kashmir.
This fine stag is more like the Canadian Wapiti than our English red-deer. The voice in the Wapiti and Bara Singha is the same, being a loud squeal with a gutteral ending, whereas the red-deer has a distinct roar. The second brow antler (or bez tine), as a general rule exceeds the brow antler in length which is not the case with the English stag. Of the four heads in this collection all are above the average and two are fine.

No. 53.-Cervus Maral.-The Persian Stag.
Habitat.-Circassia and Persia.
This stag is allied to the former but has a longer and more pointed head. Sir Victor Brooke kept a pair in one of his parks but they never interbred with the red-deer but kept aloof from them and the old stag maral though considerably larger in size lived in great fear of the red-deer stag.

No. 54.-Cervulus aureus.-The Rib Faced deer or Muntjac.

Habitat.-All over India, Burmah, Ceylon and the Malayan countries

This little deer is so well known that it hardly requires any notice here. There are few sportsmen who have not shot a Kakur or Bherki as it is generally called, though its names are numerous. I have known this deer in captivity to devour meat greedily.

No. 55.-The next pair of horns I have to notice should not properly form part of an Asiatic collection. They were given to me by a friend as a specimen from Japan but I at once recognised it as the Canadian Pronghorned antelope (Antilocapra Americana) which had probably been imported into Japan by an American vessel. This animal is noted for its being the only one of the hollow-horned ruminants which sheds its horns like the deer.
R. A. STERNDALE.



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